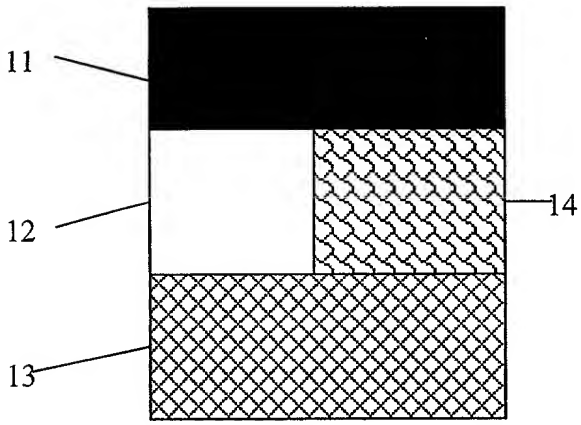


FIG. 1A
(Background Art)

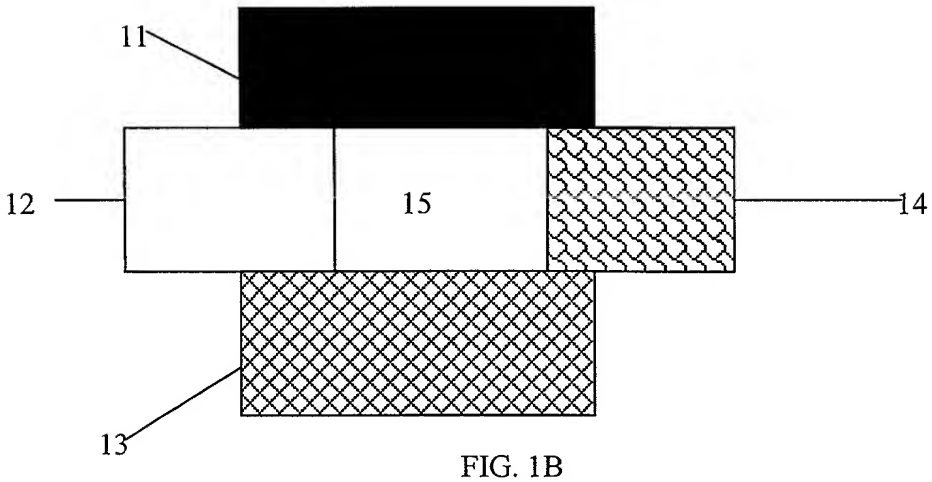


FIG. 1B
(Background Art)

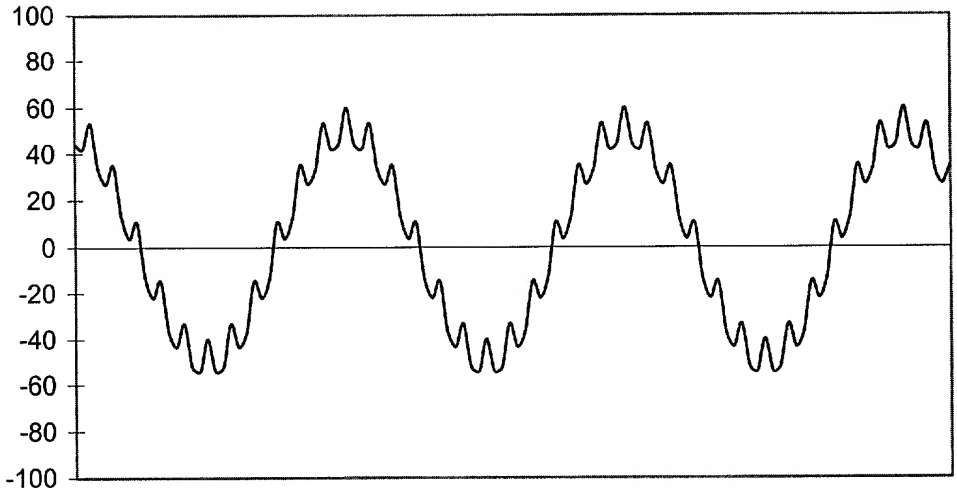


FIG.2A

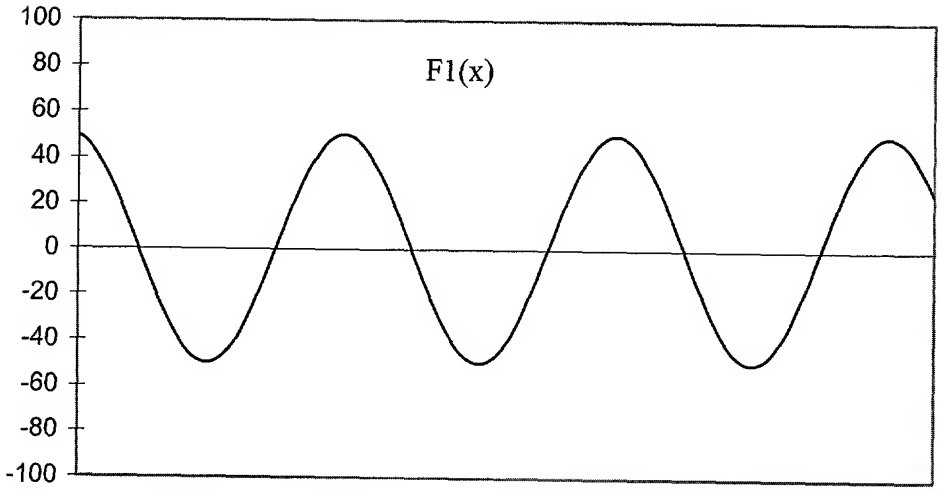


FIG.2B

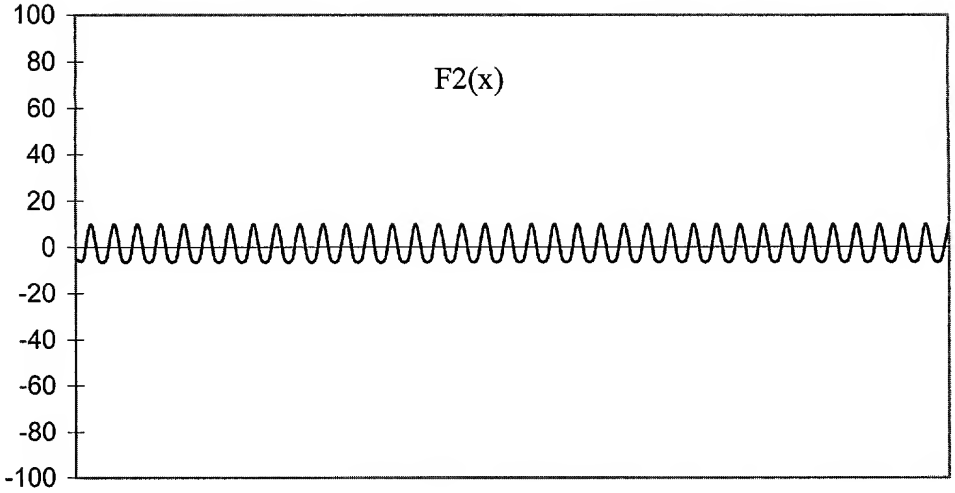


FIG.2C

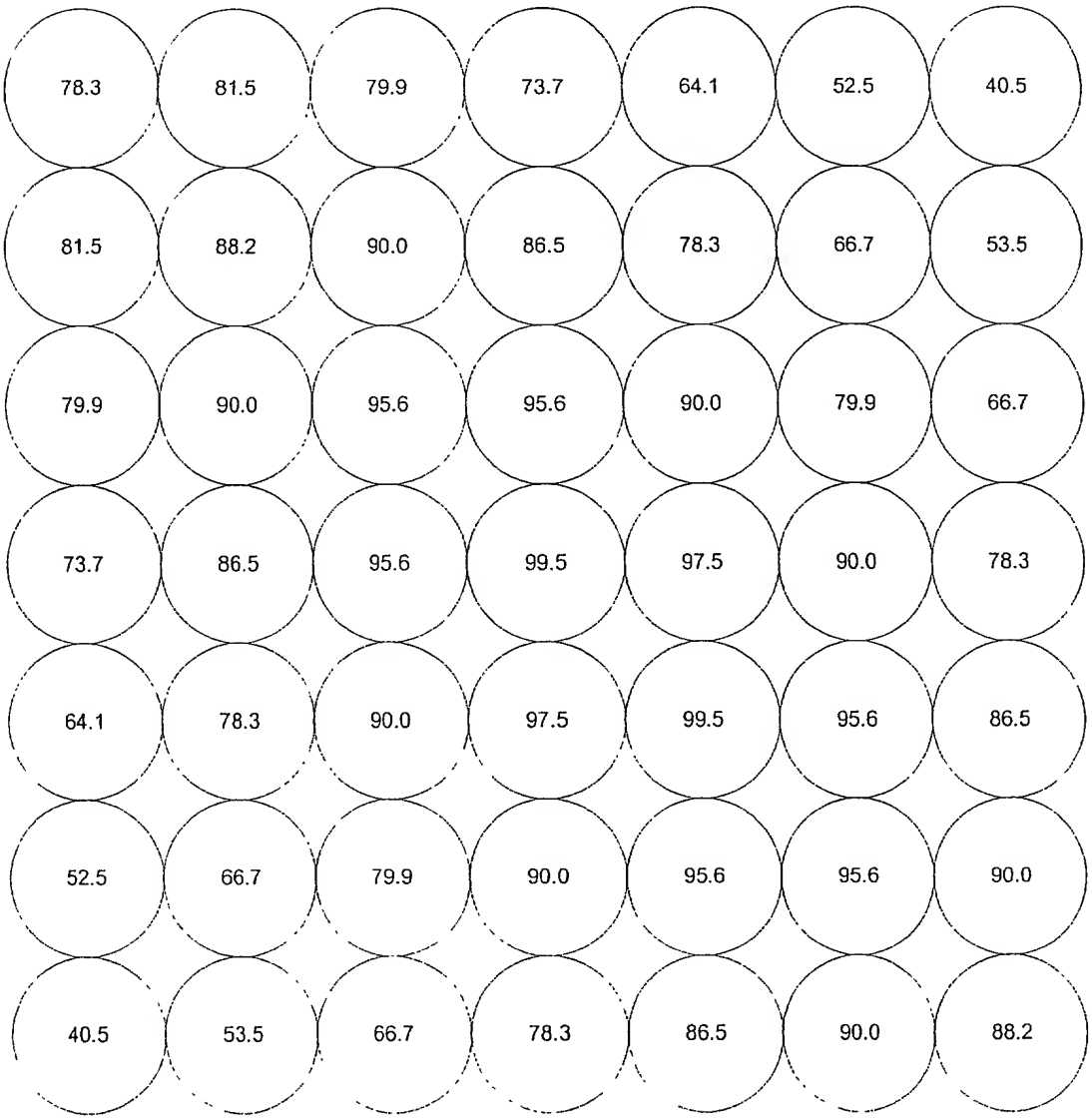
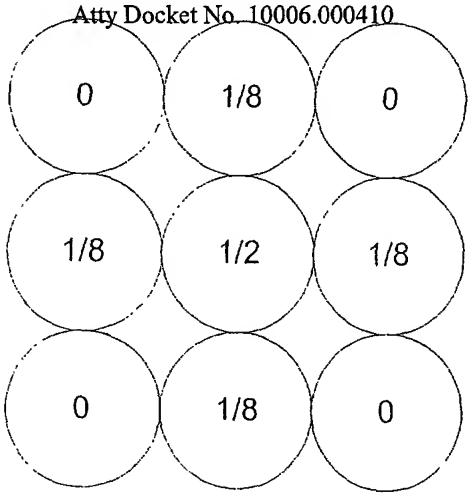

78.3 81.5 79.9 73.7 64.1 52.5 40.5
81.5 88.2 90.0 86.5 78.3 66.7 53.5
79.9 90.0 95.6 95.6 90.0 79.9 66.7
73.7 86.5 95.6 99.5 97.5 90.0 78.3
64.1 78.3 90.0 97.5 99.5 95.6 86.5
52.5 66.7 79.9 90.0 95.6 95.6 90.0
40.5 53.5 66.7 78.3 86.5 90.0 88.2

FIG. 2D



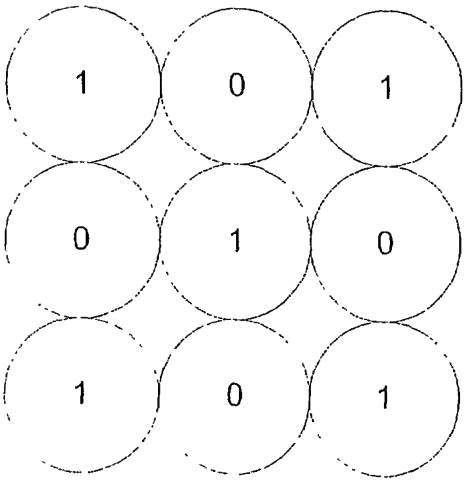


FIG. 2E

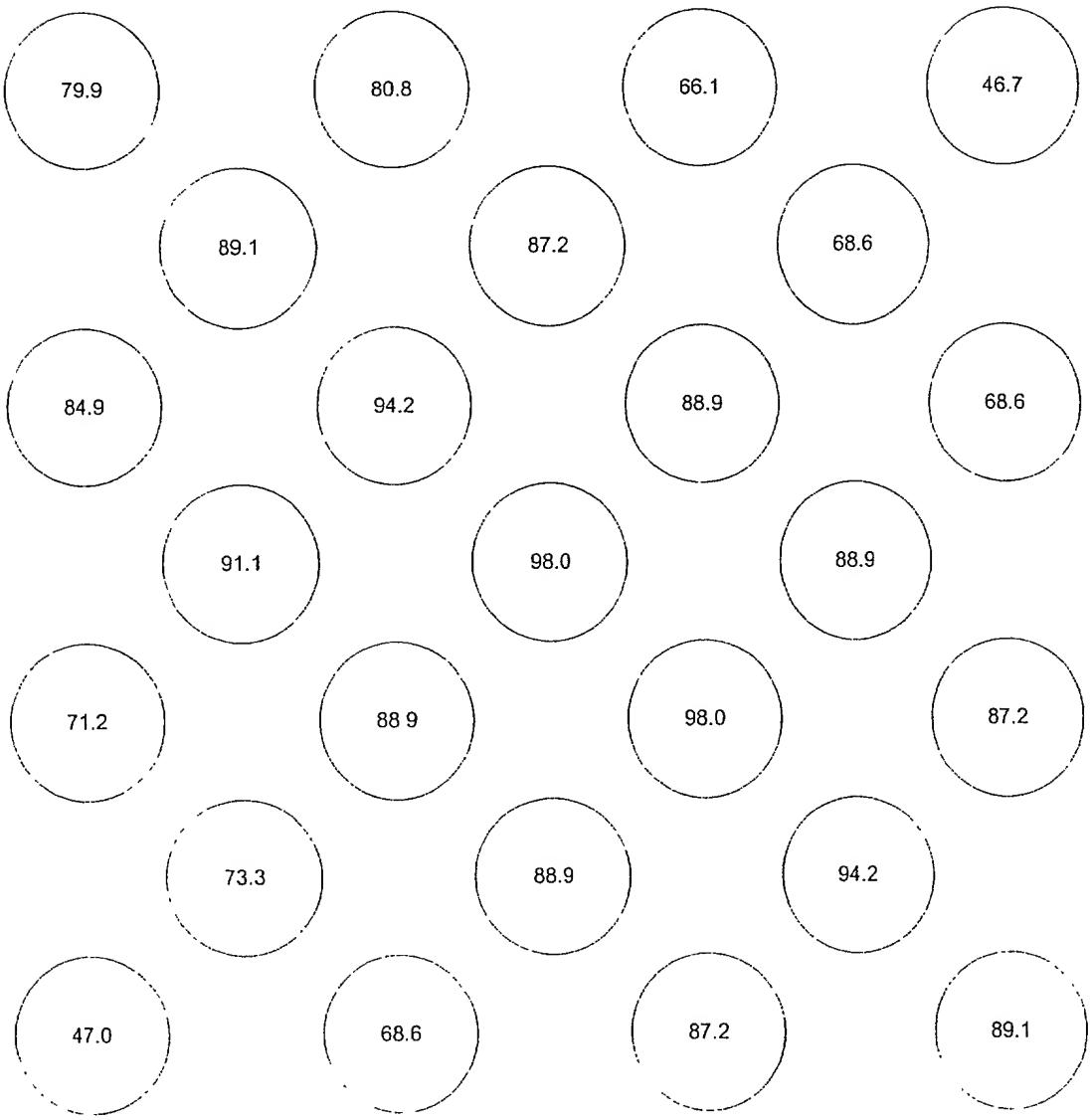

79.9
80.8
66.1
46.7
89.1
87.2
68.6
84.9
94.2
88.9
68.6
91.1
98.0
88.9
71.2
88 9
98.0
87.2
73.3
88.9
94.2
47.0
68.6
87.2
89.1

FIG. 2F

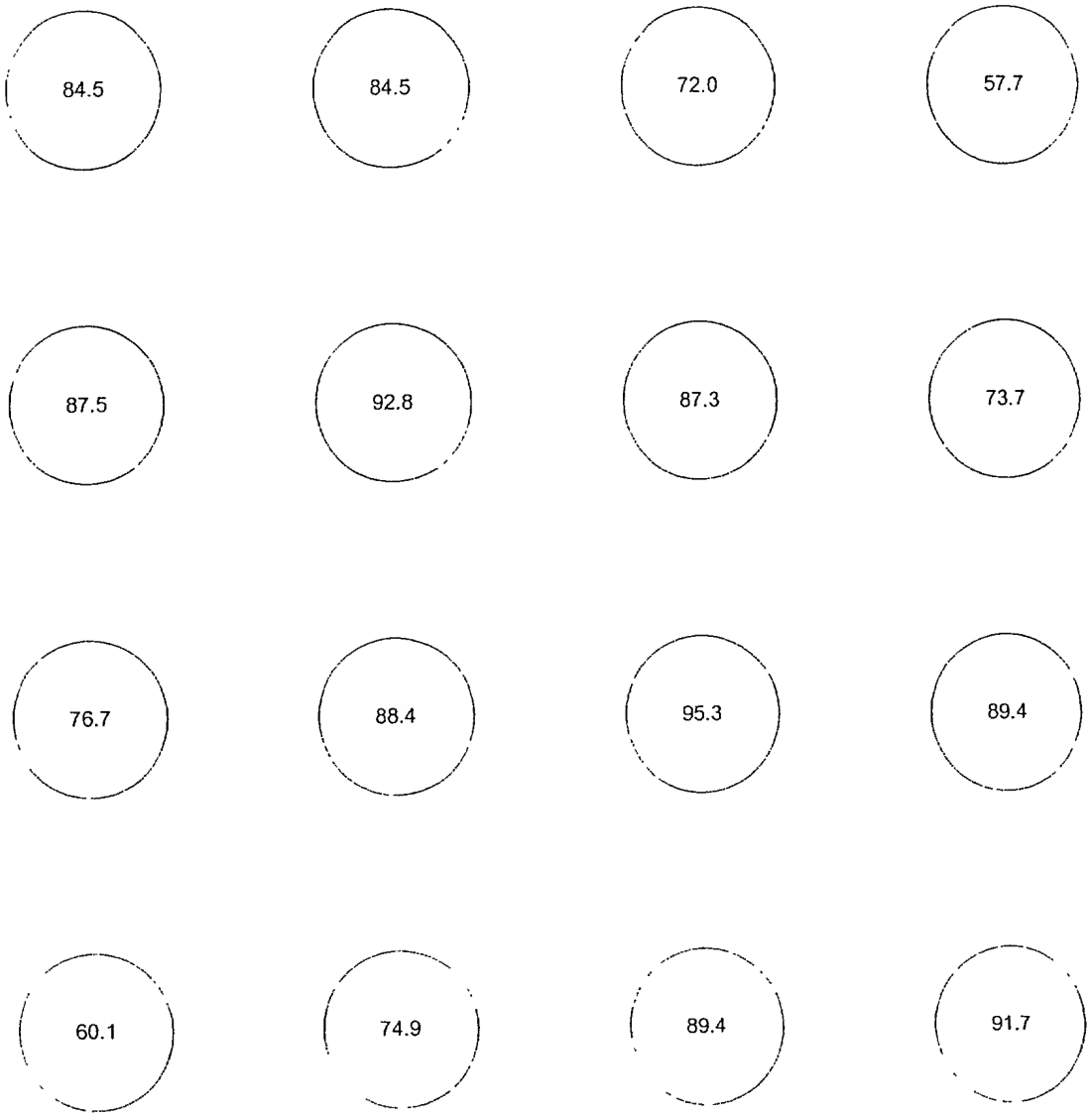


FIG. 2G

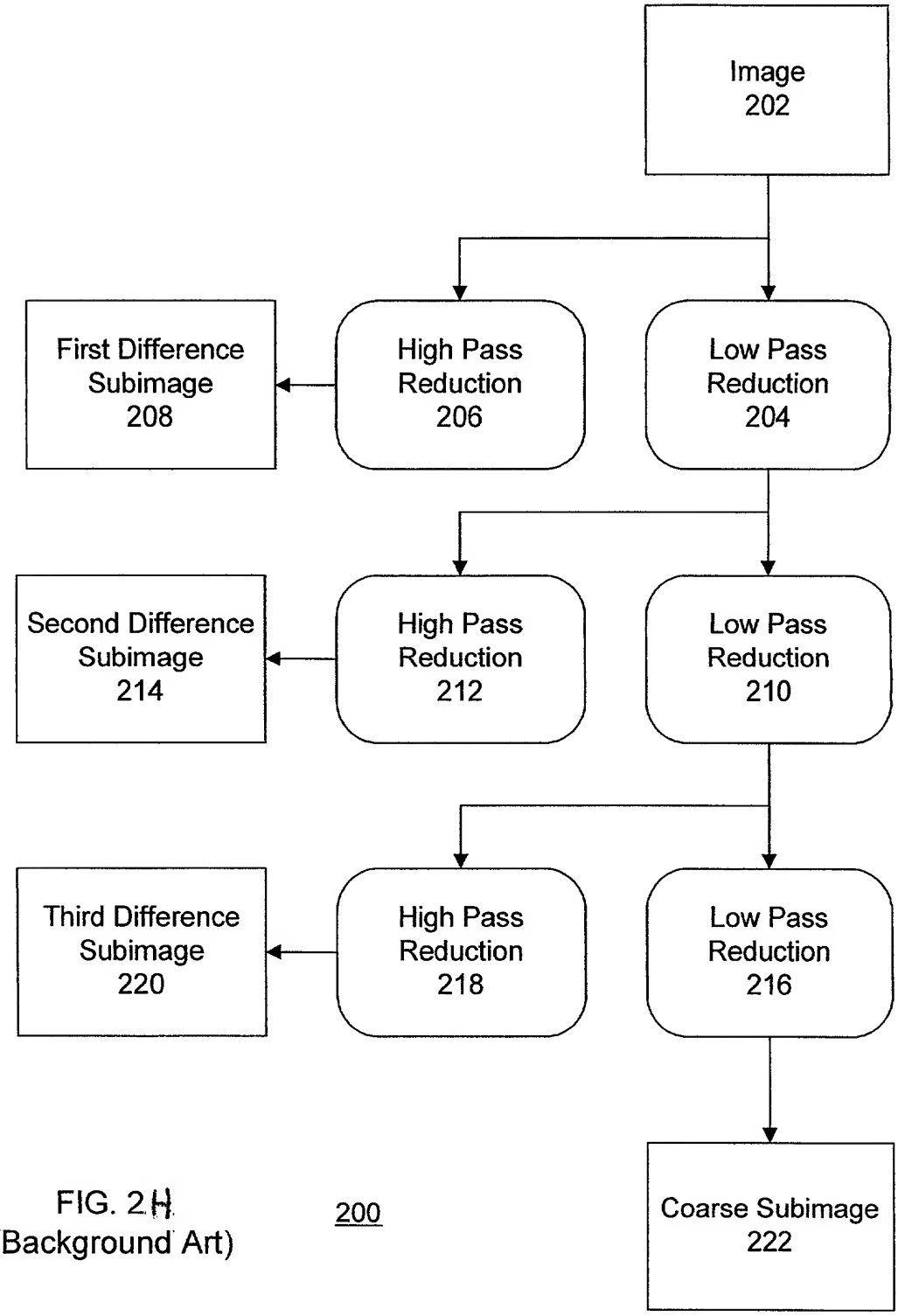
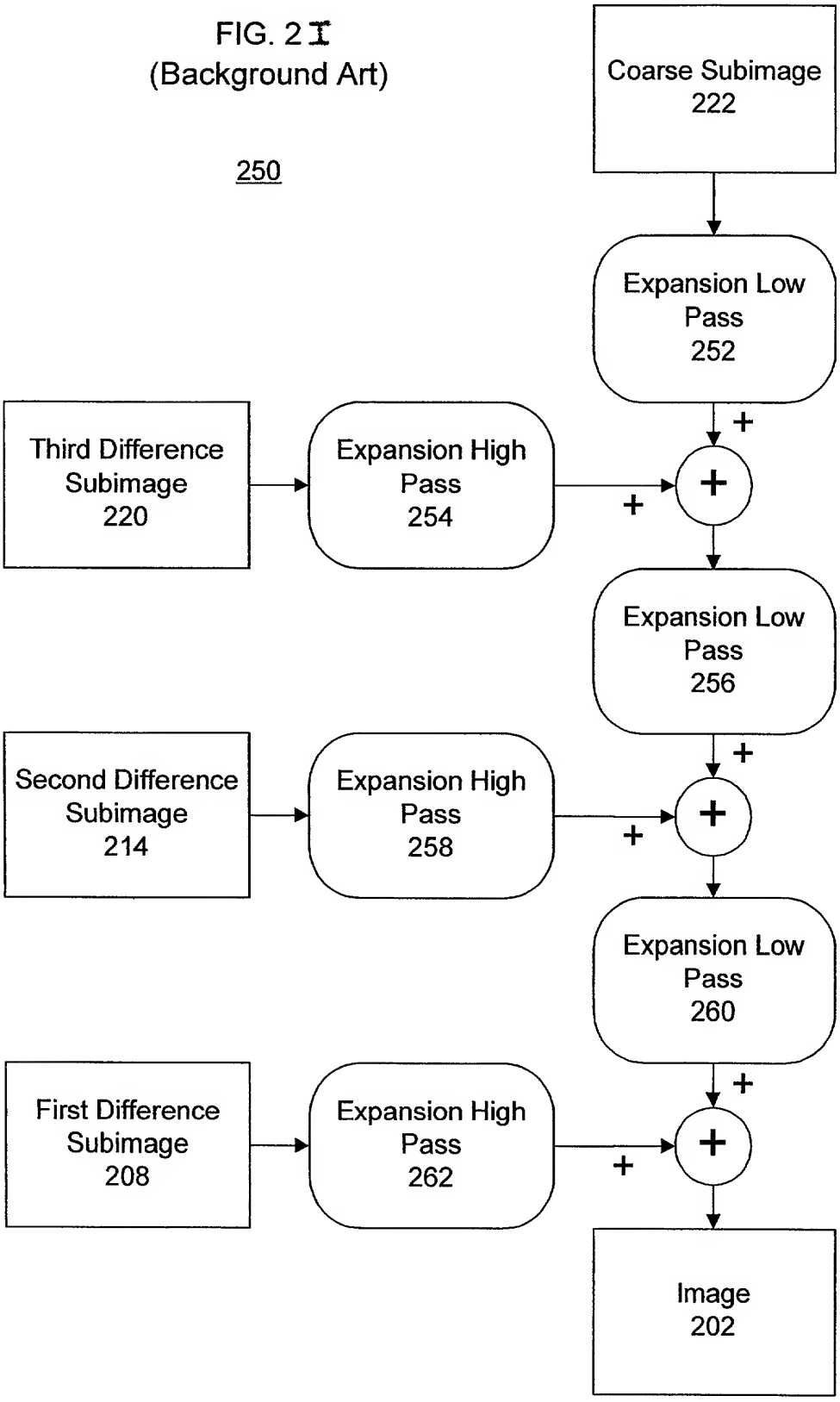


FIG. 2H
(Background Art)

200

FIG. 2I
(Background Art)



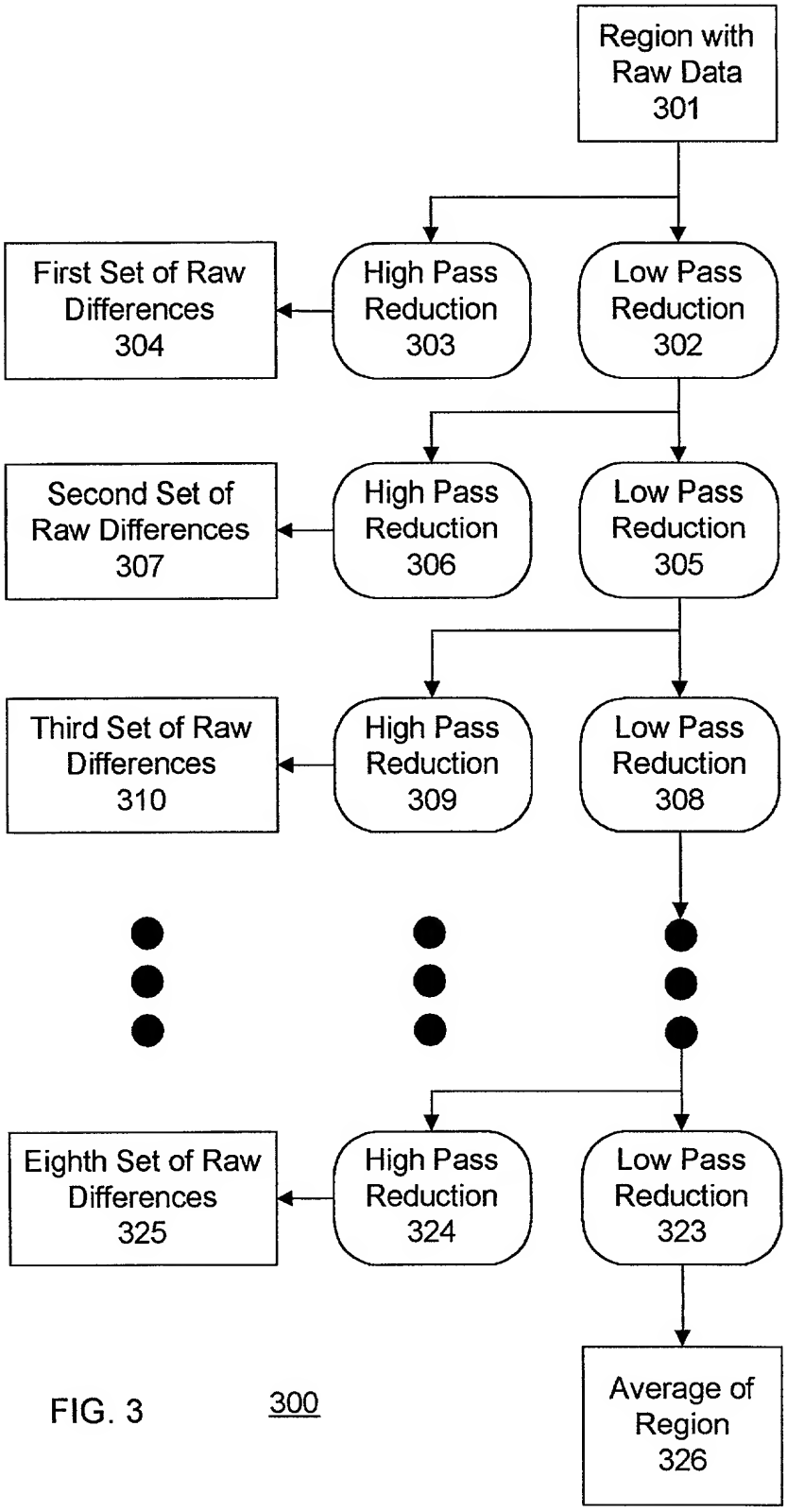

Region with Raw Data 301
First Set of Raw Differences 304
High Pass Reduction 303
Low Pass Reduction 302
Second Set of Raw Differences 307
High Pass Reduction 306
Low Pass Reduction 305
Third Set of Raw Differences 310
High Pass Reduction 309
Low Pass Reduction 308
Eighth Set of Raw Differences 325
High Pass Reduction 324
Low Pass Reduction 323
Average of Region 326

FIG. 3 300

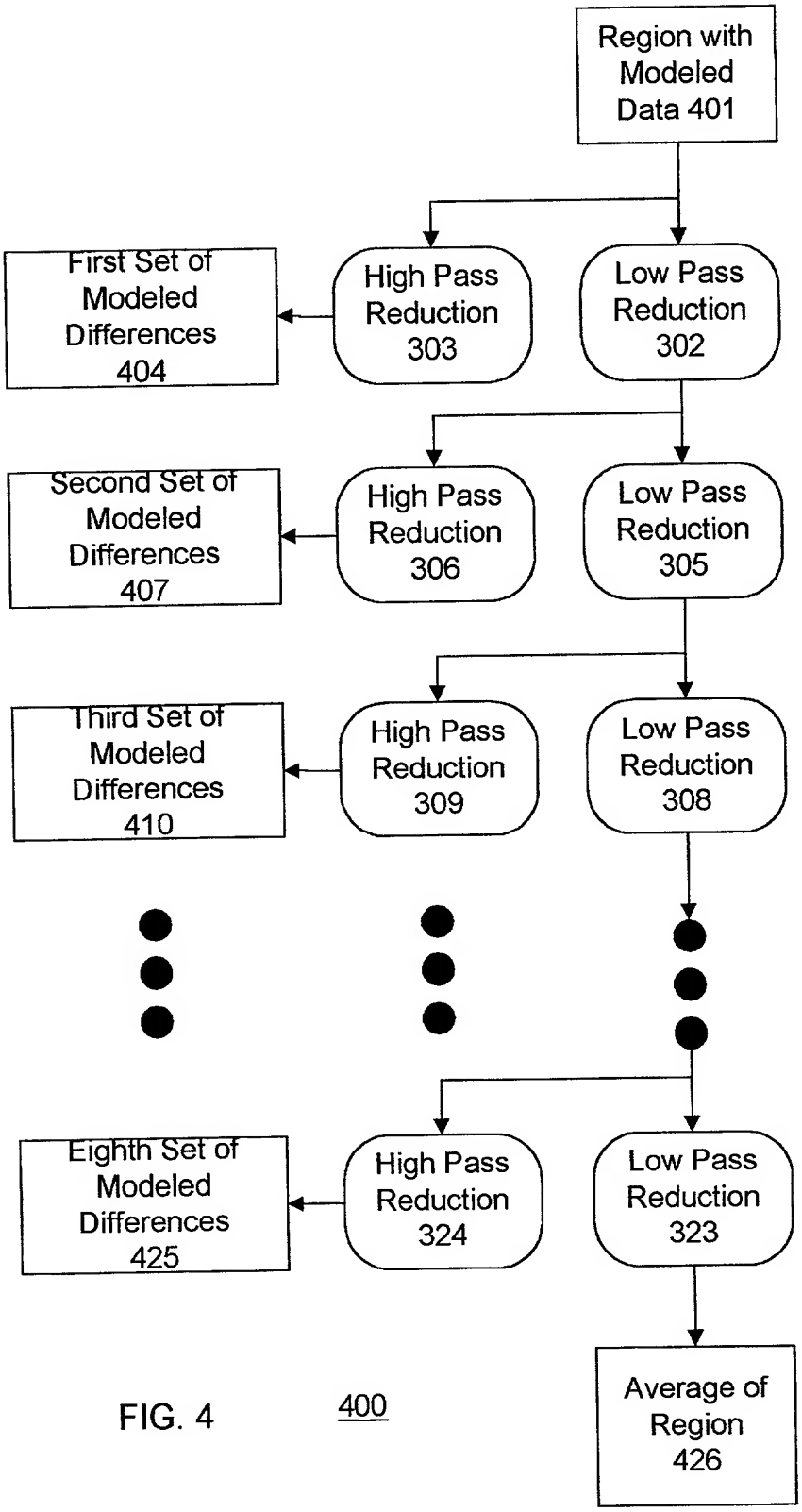

Region with Modeled Data 401
First Set of Modeled Differences 404
High Pass Reduction 303
Low Pass Reduction 302
Second Set of Modeled Differences 407
High Pass Reduction 306
Low Pass Reduction 305
Third Set of Modeled Differences 410
High Pass Reduction 309
Low Pass Reduction 308
Eighth Set of Modeled Differences 425
High Pass Reduction 324
Low Pass Reduction 323
Average of Region 426

FIG. 4 400

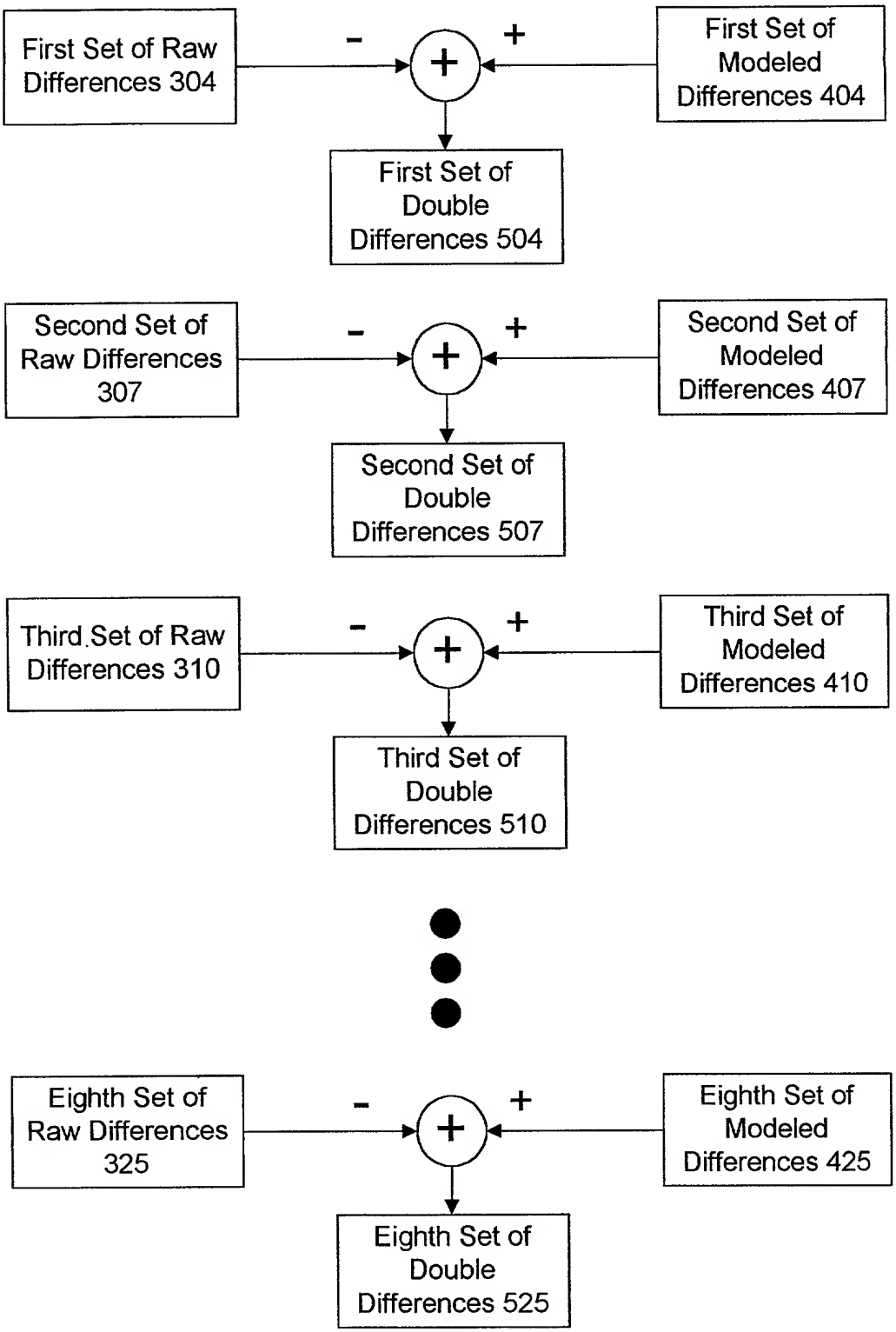

First Set of Raw Differences 304
-
+
First Set of Modeled Differences 404
First Set of Double Differences 504
Second Set of Raw Differences 307
-
+
Second Set of Modeled Differences 407
Second Set of Double Differences 507
Third Set of Raw Differences 310
-
+
Third Set of Modeled Differences 410
Third Set of Double Differences 510
Eighth Set of Raw Differences 325
-
+
Eighth Set of Modeled Differences 425
Eighth Set of Double Differences 525

FIG. 5 500

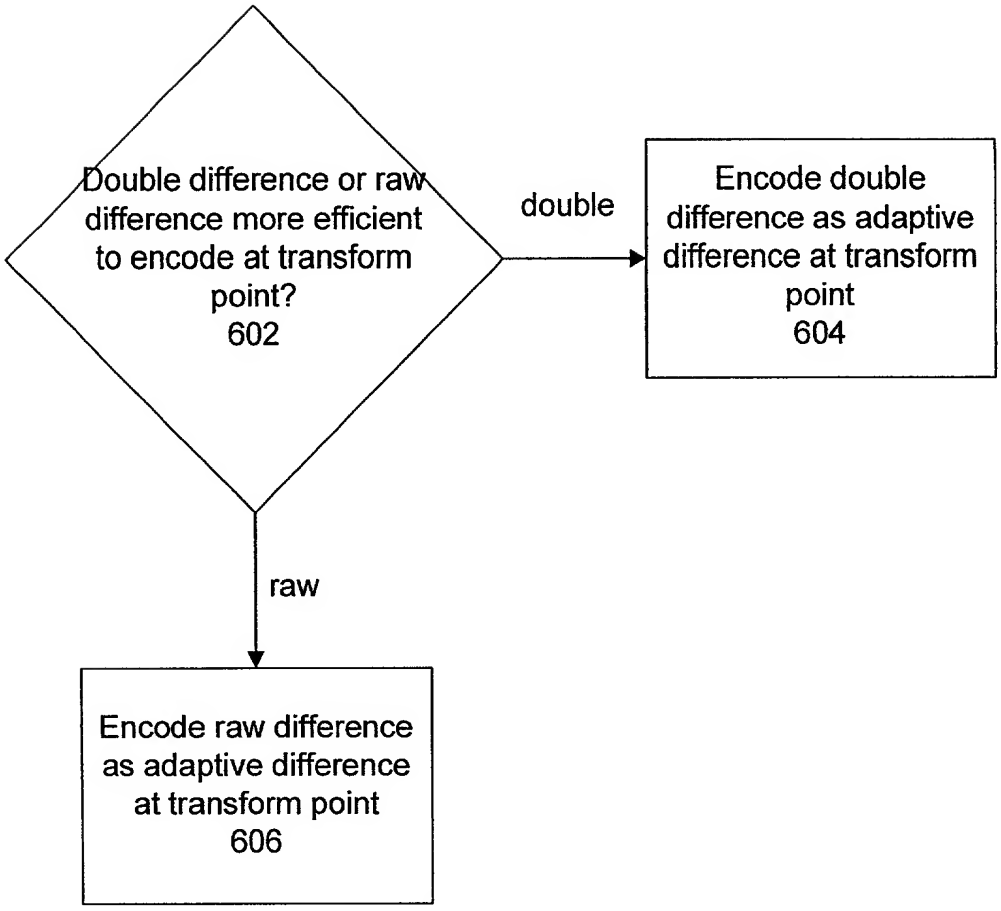

Double difference or raw difference more efficient to encode at transform point?
602
double
Encode double difference as adaptive difference at transform point
604
raw
Encode raw difference as adaptive difference at transform point
606

FIG. 6 600

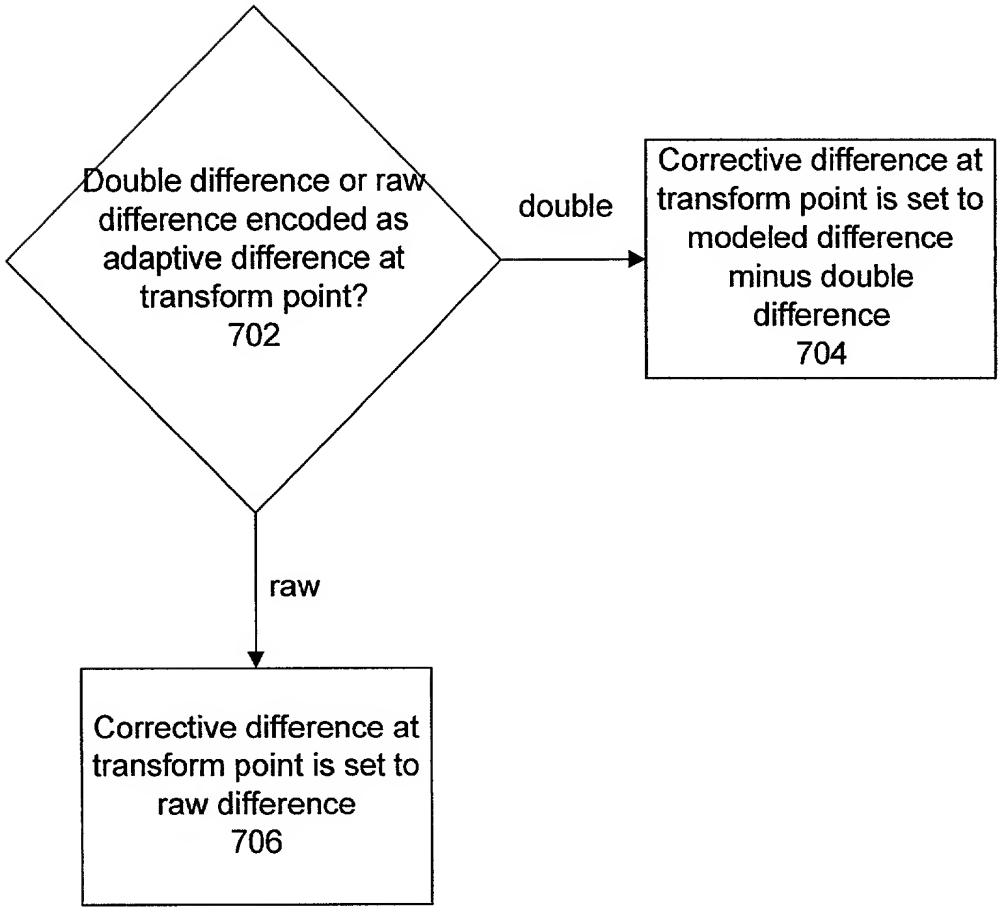
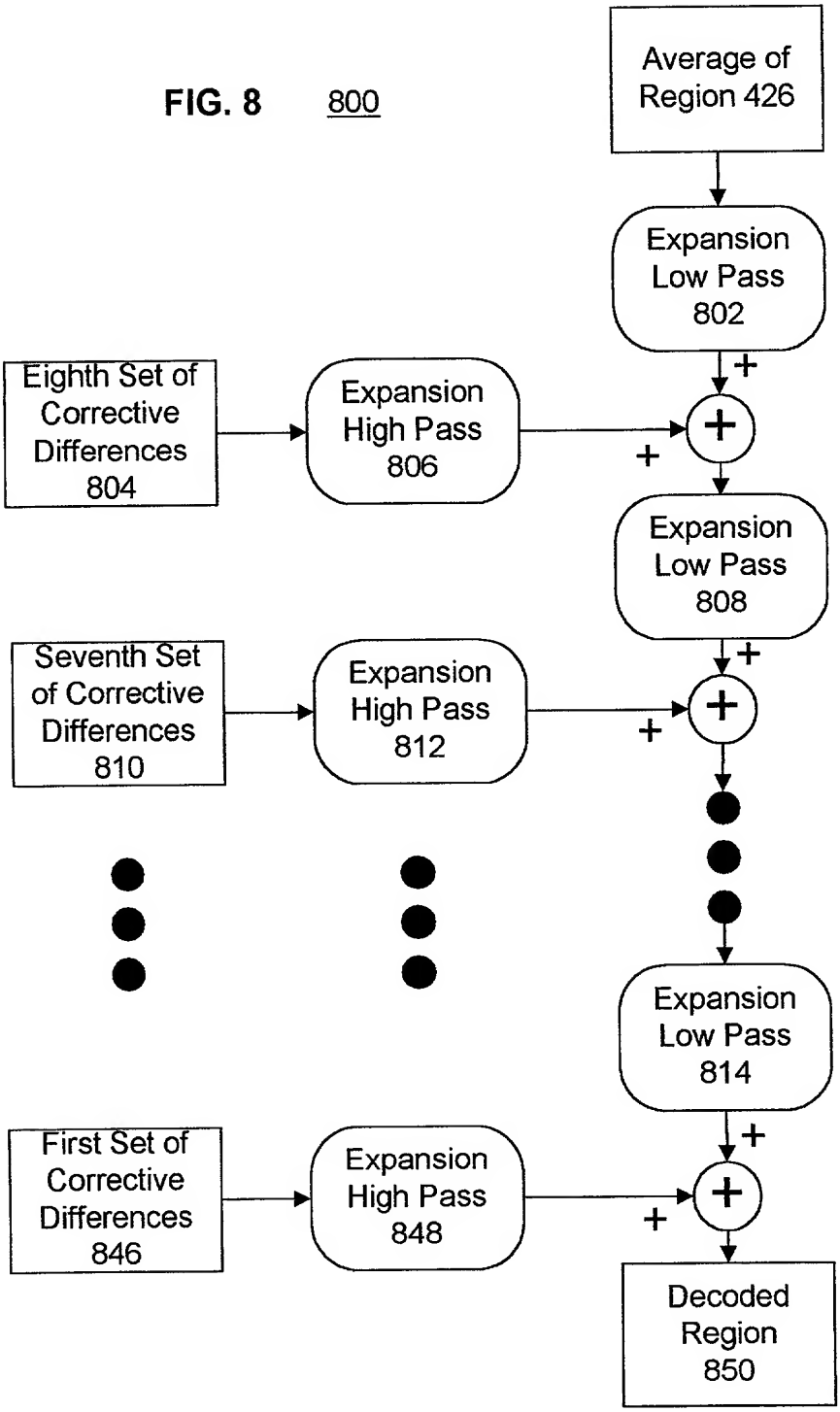
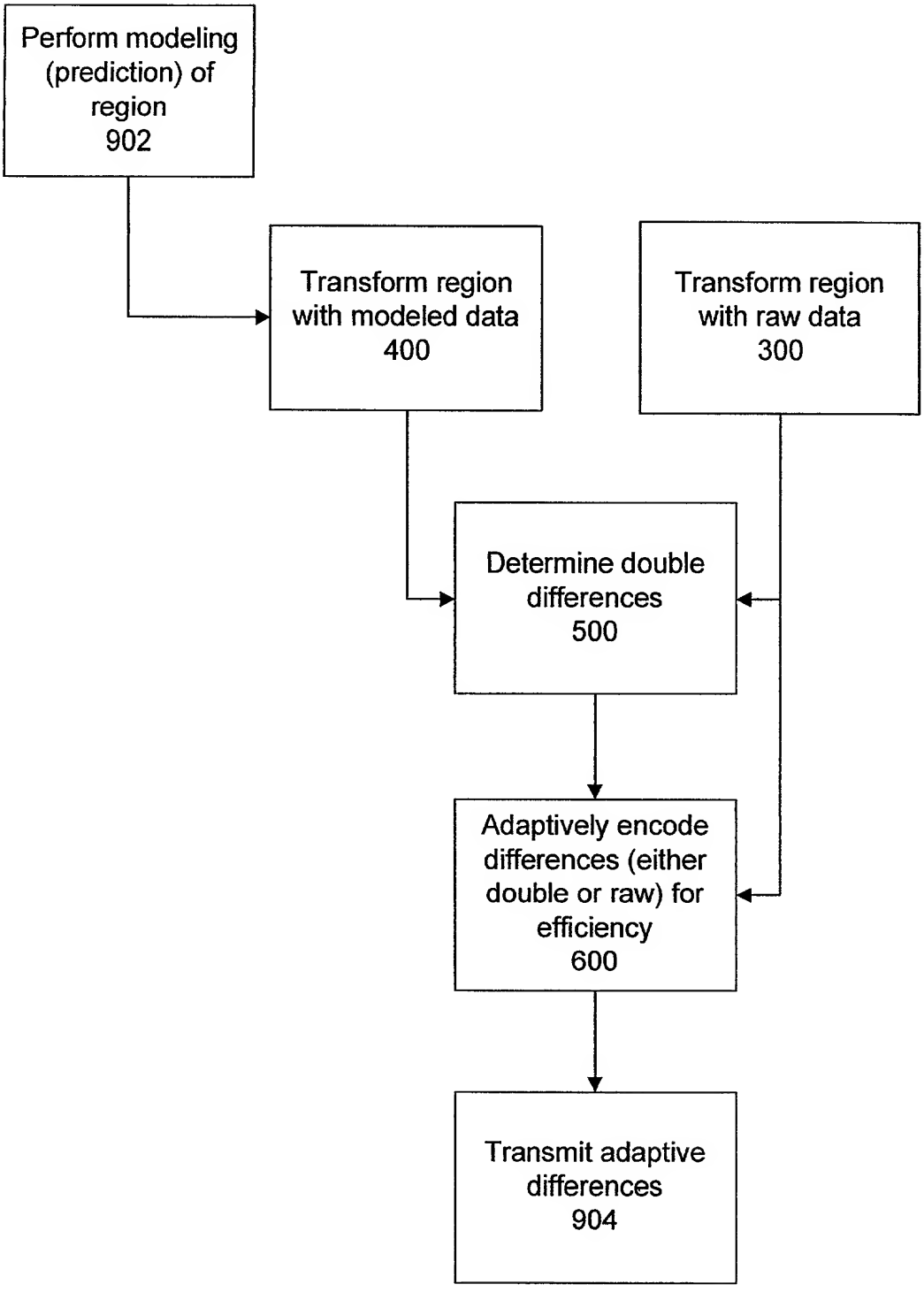

Double difference or raw difference encoded as adaptive difference at transform point?
702
double
Corrective difference at transform point is set to modeled difference minus double difference
704
raw
Corrective difference at transform point is set to raw difference
706

FIG. 7 700

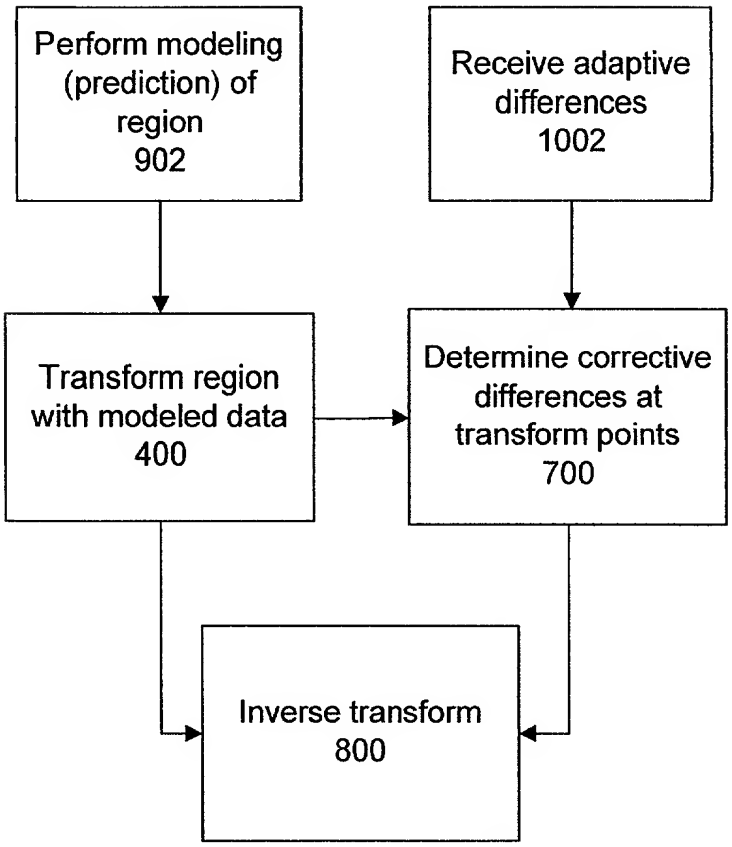
FIG. 8 800


Average of Region 426
Expansion Low Pass 802
Eighth Set of Corrective Differences 804
Expansion High Pass 806
Expansion Low Pass 808
Seventh Set of Corrective Differences 810
Expansion High Pass 812
Expansion Low Pass 814
First Set of Corrective Differences 846
Expansion High Pass 848
Decoded Region 850



Encoding Process

FIG. 9 900



Decoding Process

FIG. 10 1000